

REMARKS

Favorable reconsideration and allowance of the present application are respectfully requested in view of the following remarks. Claims 1-32 were pending prior to the Office Action. In this Reply, claims 33-44 are added. Therefore, claims 1-44 are pending. Claims 1, 7, 9, 10 and 14 are independent.

ALLOWABLE SUBJECT MATTER

Applicants appreciate that the Examiner considers claims 19-20, 22-28 and 32 to include allowable subject matter.

§ 102 REJECTION – ISHIHARA

Claims 14 and 15 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Ishihara et al. (US Patent 6,091,513). Applicants respectfully traverse.

For a Section 102 rejection to be proper, the cited reference must teach or suggest each and every claimed element. *See M.P.E.P. 2131; M.P.E.P. 706.02.* Thus, if the cited reference fails to teach or suggest one or more elements, then the rejection is improper and must be withdrawn.

In this instance, Ishihara fails to teach or suggest each and every recited feature of the claims. As recited in claim 14, the image processor includes a first memory for storing the first image signal and a second memory for storing

a plurality of second image signals, wherein the second memory is a non-volatile memory. In the Office Action, the Examiner refers to Figure 6 of Ishihara and alleges that the features of claim 14 are disclosed. In Figure 6 of Ishihara, a single image memory 34 is disclosed. The Examiner is apparently interpreting the single image memory 34 as being equivalent to both the first and second memories as recited. The Examiner further relies upon column 18, line 65- column 19, line 10 to allege that image memory 34 is non-volatile. The Examiner's reliance is misguided.

Ishihara is directed toward an apparatus and method for converting image size and recording medium recording the image size converting program. Figure 6 illustrates a functional block diagram of the image size converting process disclosed in Ishihara. The flow chart for the image size converting process is illustrated in Figures 7A and 7B. The relied upon portion merely indicates that the program providing the functions as illustrated in the functional blocks of Figure 6 can be recorded as a program in medium such as CD-ROM, floppy disks, or can be provided via online. In other words, column 18, line 65-column 19, line 10 merely indicates where the image size conversion program may be stored. There is nothing in Ishihara to indicate that the plurality of second image data produced through image processing are stored in a non-volatile memory.

The suggestion is actually quite the opposite. Ishihara states that the program provided by the recording medium is loaded into the processing apparatus and is executed on a main memory. *See Ishihara, column 19, lines 6-8.* As one of ordinary skill would realize, main memory of the processing apparatus typically refer to RAMs which are volatile.

It is clear that independent claim 14 is distinguishable over Ishihara. Claim 15 is also distinguishable over Ishihara for at least due to its dependency from claim 14.

Claim 15 is also distinguishable on its own merits. More specifically, claim 15 recites that the step of generating the plurality of second image data includes “directly processing the first image data when generating each of the plurality of second image data.” Again referring to Figure 6 of Ishihara, it appears that the Examiner is alleging the virtual image 38 and the target image 40 are equivalent to the plurality of second image data as recited. As noted above, Ishihara is directed toward magnifying or reducing an original image of a size $P \times Q$ to a target image of size $M \times N$. If the image is to be simply magnified by a magnification ratio greater than 2 or to a high resolution, the original image is simply converted to the target image through a nearest neighborhood method. *See Figure 7A, step S6.* Thus, in a simple magnification process, there are no plurality of second images created.

On the other hand, if the magnification ratio is less than 2 and the resulting output is not high resolution, an intermediate virtual image 38 that is larger than the target image is created and the virtual image 38 is reduced to the target image size. *See Figure 7A, step S5.* In this instance, the original image is not directly processed to generate the target image, which is contrary to the feature as recited in claim 15.

If the original image is to be reduced, again a virtual image that is larger than the target image and the virtual image is processed to arrive at the target image. In other words, the target image is not directly processed from the original image.

It is clear that claim 15 is distinguishable on its on merit over Ishihara. For at least the reasons stated above, Applicants respectfully request that the rejection of claims 14 and 15 based on Ishihara be withdrawn.

§ 103 REJECTION – ISHIHARA, BOIES

Claims 1, 3-4, 6-7, 9, 11-12 and 29 stand rejected under 35 U.S.C. § 103(a) as being allegedly being unpatentable over Ishihara in view of Boies et al. (US Patent 5, 426,732). Applicants respectfully traverse.

For a Section 103 rejection to be proper, a *prima facie* case of obviousness must be established. *See M.P.E.P. 2142.* One requirement to establish *prima facie case* of obviousness is that the prior art references, when

combined, must teach or suggest all claim limitations. *See M.P.E.P. 2142; M.P.E.P. 706.02(j)*. Thus, if the cited references fail to teach or suggest one or more elements, then the rejection is improper and must be withdrawn.

Independent claim 1 recites, in part “wherein said second memory is a non-volatile memory.” It is demonstrated above that Ishihara cannot teach or suggest this feature. Boies is not relied upon to correct for at least this deficiency of Ishihara. Therefore, claim 1 is distinguishable over the combination of Ishihara and Boies.

Accordingly, claims 3-4, 6 and 11 are also distinguishable over Ishihara and Boies for at least due to their dependencies from independent claim 1.

Independent claim 7 recites, in part “a plurality of image processors for each performing image processing, different from each other, on the stored first image signal to produce a third image signal different from each other” and “an image composer circuit for composing the third image signals to produce the second image signal.” Contrary to the Examiner’s allegation, Ishihara cannot teach or suggest this feature.

In this instance, the Examiner alleges that the virtual image 38 as illustrated in Figure 6 of Ishihara is equivalent to the third image signal as recited and the target image 40 is equivalent to the second image signal as recited. As demonstrated above, the apparatus of Ishihara generates at most one virtual image 38 depending on whether the original image 36 is to be

magnified or reduced. *See Figures 7A and 7B.* Ishihara does not produce a plurality of third image signals from the first image signal as recited in claim 7. Further, Ishihara does not disclose that the multiple virtual images 38 can be composed into a single target image. Therefore, Ishihara also fails to teach the feature of the image composer circuit as recited.

Boies is not relied upon to correct for at least the above noted deficiencies of Ishihara. Therefore, claim 7 is distinguishable over the combination of Ishihara and Boies. Accordingly, claim 29 is also distinguishable over Ishihara and Boies for at least due to its dependency from claim 7.

Claim 9 recites, in part “wherein the second memory is a non-volatile memory.” It is demonstrated above that the combination of Ishihara and Boies cannot teach or suggest this feature. For at least this reason, independent claim 9 is distinguishable over Ishihara and Boies. Accordingly, claim 12 is also distinguishable over Ishihara and Boies for at least due to its dependency from claim 9.

Applicants respectfully request that the rejection of claims 1, 3-4, 6-7, 9, 11-12 and 29 based on Ishihara and Boies be withdrawn.

§ 103 REJECTION – ISHIHARA, BOIES, MORIYA

Claims 2, 5, 8, 10, 13 and 30-31 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ishihara in view of Boies, and in further view of Moriya et al. (US Patent 5,754,709). Applicants respectfully traverse.

Claims 2-5, 8, 13 and 30 depend from independent claims 1 or 7, directly or indirectly, and it is demonstrated above that claims 1 and 7 are distinguishable over the combination of Ishihara and Boies. Moriya is not relied upon to correct for at least the above noted deficiencies of Ishihara and Boies. Therefore, claims 1 and 7 are distinguishable over the combination of Ishihara, Boies, and Moriya. Accordingly, claims 2, 5, 8, 13 and 30 are also distinguishable over the combination of Ishihara, Boies and Moriya.

Independent claim 10 recites, in part “a plurality of image processors for each performing image processing, different from each other, on the stored first image signal to produce the second image signal different from each other” and “an image composer circuit for composing the second image signals to produce a third image signal.” It demonstrated above that the combination of Ishihara and Boies cannot teach or suggest this feature. Moriya is not relied upon to correct for at least this deficiency of Ishihara and Boies. Therefore, independent claim 10 is distinguishable over the combination of Ishihara,

Boies and Moriya. Accordingly, claim 31 is also distinguishable over the same combination of references for at least due to its dependency from claim 10.

Further, it was demonstrated in a previous Office Action that Boies cannot be combined with Moriya.

For at least the above stated reasons, Applicants respectfully request that the rejection of claims 2, 5, 8, 10, 13 and 30-31 based on Ishihara, Boies and Moriya be withdrawn.

§ 103 REJECTION – ISHIHARA, MORIYA

Claims 16-18 and 21 stand rejected under U.S.C. § 103(a) as allegedly being unpatentable over Ishihara in view of Moriya. Applicants respectfully traverse.

Claims 16-18 and 21 depend from independent claim 14, and it demonstrated above that claim 14 is distinguishable over Ishihara. Moriya is not relied upon to correct for at least the above noted deficiencies of Ishihara. Therefore, claim 14 is distinguishable over the combination of Ishihara and Moriya.

Accordingly, claims 16-18 and 21 are also distinguishable over Ishihara and Moriya for at least due to their dependencies from claim 14.

Applicants respectfully request that the rejection of claims 16-18 and 21 based on Ishihara and Moriya be withdrawn.

NEW CLAIMS

Through this Reply, claims 33-44 are added. No new matter is presented. All new claims are distinguishable over the cited references, individually or in any combination, for at least due to their dependencies from independent claims. Applicants respectfully request that new claims be allowed.

CONCLUSION

All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance. Should there be any outstanding matters that need to be resolved, the Examiner is respectfully requested to contact Hyung Sohn (Reg. No. 44,346), to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Date: January 18, 2007

Respectfully submitted,

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